

**In the claims:**

The following listing of claims replaces all prior listings of claims in this application.

1. (currently amended) A method of generating embroidery data from image data, comprising:  
receiving distance transform data;  
classifying an object associated with the image data based on the distance transform data by extracting a regularity characteristic from the image data, wherein the regularity characteristic is representative of a variation in thickness of a region defined by the object; and  
generating embroidery data based on the classification of the object.
2. (original) A method as defined in claim 1, further comprising extracting distance transform statistics from the distance transform data.
3. (original) A method as defined in claim 2, wherein extracting the regularity characteristic includes extracting the regularity characteristic from the distance transform statistics.
4. (original) A method as defined in claim 1, wherein extracting the regularity characteristic includes extracting the regularity characteristic based on the distance transform data and skeletal data associated with the image data.

5. (original) A method as defined in claim 1, wherein the regularity characteristic of the object is one of an irregular characteristic and a predominantly regular characteristic.
6. (original) A method as defined in claim 1, further comprising selecting a stitch type based on the regularity characteristic of the object.
7. (original) A method as defined in claim 6, wherein the stitch type is one of a fill type and a column type.
8. (original) A method as defined in claim 1, wherein the object is one of a plurality of objects associated with the image data.
9. (original) A method as defined in claim 1, wherein the object is part of one of a plurality of objects associated with the image data.

10. (currently amended) A system for generating embroidery data from image data, comprising:

a memory; and

a processor coupled to the memory and programmed to:

receive distance transform data;

classify an object associated with the image data based on the distance transform data by extracting a regularity characteristic from the image data, wherein the regularity characteristic is representative of a variation in thickness of a region defined by the object; and

generate embroidery data based on the classification of the object.

11. (original) A system as defined in claim 10, wherein the processor is programmed to extract distance transform statistics from the distance transform data.

12. (original) A system as defined in claim 11, wherein the processor is programmed to extract the regularity characteristic by extracting the regularity characteristic from the distance transform statistics.

13. (original) A system as defined in claim 10, wherein the processor is programmed to extract the regularity characteristic by extracting the regularity characteristic based on the distance transform data and skeletal data associated with the image data.

14. (original) A system as defined in claim 10, wherein the regularity characteristic of the object is one of an irregular characteristic and a predominantly regular characteristic.
15. (original) A system as defined in claim 10, wherein the processor is programmed to select a stitch type based on the regularity characteristic of the object.
16. (original) A system as defined in claim 15, wherein the stitch type is one of a fill type and a column type.
17. (original) A system as defined in claim 10, wherein the object is one of a plurality of objects associated with the image data.
18. (original) A system as defined in claim 10, wherein the object is part of one of a plurality of objects associated with the image data.
19. (currently amended) A machine readable medium having instructions stored thereon that, when executed, cause a machine to:
- receive distance transform data;
- classify an object associated with image data based on the distance transform data by extracting a regularity characteristic from the image data, wherein the regularity characteristic is representative of a variation in thickness of a region defined by the object; and
- generate embroidery data based on the classification of the object.

20. (original) A machine readable medium as defined in claim 19 having instructions stored thereon that, when executed, cause the machine to extract distance transform statistics from the distance transform data.
21. (original) A machine readable medium as defined in claim 20 having instructions stored thereon that, when executed, cause the machine to extract the regularity characteristic from the distance transform statistics.
22. (original) A machine readable medium as defined in claim 19 having instructions stored thereon that, when executed, cause the machine to extract the regularity characteristic based on the distance transform data and skeletal data associated with the image data.
23. (original) A machine readable medium as defined in claim 19, wherein the regularity characteristic of the object is one of an irregular characteristic and a predominantly regular characteristic.
24. (original) A machine readable medium as defined in claim 19 having instructions stored thereon that, when executed, cause the machine to select a stitch type based on the regularity characteristic of the object.
25. (original) A machine readable medium as defined in claim 24, wherein the stitch type is one of a fill type and a column type.

26. (original) A machine readable medium as defined in claim 19, wherein the object is one of a plurality of objects associated with the image data.

27. (original) A machine readable medium as defined in claim 19, wherein the object is part of one of a plurality of objects associated with the image data.